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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,054	07/10/2003	Jerzy Bala	P03,0293	2642
26574	7590	11/16/2004	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			RIMELL, SAMUEL G	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,054

Applicant(s)

BALA, JERZY

Examiner

Sam Rimell

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**SAM RIMELL**  
PRIMARY EXAMINER

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 2165

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahara et al. (U.S. Patent 5,381,158).

Claim 1: FIG. 1 illustrates a system in which a user physically interacts with objects in a three dimensional environment. The movement and interaction of the objects is the for the purpose of collating and retrieving information from a database (col. 2, lines 43-45) and thus constitutes data mining. Each of the objects (FIG. 2) represents keywords (col. 6, lines 39-44) and thus represents rules since they define what is to be searched for in the database. As seen in FIG. 8, the user can zoom on an object by physically moving it closer to the eye, and navigate by moving the object along a multi-dimensional axis.

Claim 2: In FIG. 2, all of the rules which are available to the user are represented.

Claim 3: In FIG. 8, only one of the rules is represented, thus less than all the rules are represented.

Claim 4: As seen in FIG. 2, the rules (7A) and (7B) are presented as spheres. As seen in FIG. 10, the spheres can be placed along a spirally arranged path to retrieve data for certain period of time.

Claim 5: As described at col. 7, lines 35-40, the size of the sphere is related to the amount of information it contains. A larger sphere embodies a greater amount of information.

Art Unit: 2165

Claim 6: As seen in FIGS. 11, 12(A) and 12(B), information such as “Literature” or “History” is displayed in association with each object, with each object correlating to a rule.

Claim 7: Col. 6, lines 39-44, indicate that the keywords on each object, such as “Literature” or “History” illustrated in FIG. 12(A) correlate to indexes. In other words, Takahara et al. defines the keywords as being retrieval indexes.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Josephson et al. (U.S. Patent 6,771,293).

Claim 8: The reference to Josephson is directed to the concept of filtering designs in a large database of available designs. The filtering process is readable as the act of removing noise from data, the noise being data that is filtered out (abstract, lines 1-6).

The “concept learner” is the system that performs the process shown in FIG. 1.

The seeker (30) obtains component from a database of devices (10) (col. 3, lines 1-5) to form design candidates, which are the claimed “concepts”.

Algorithms called design critics (60) perform an evaluation of each device that is obtained by the seeker (col. 3, lines 6-11). The critics (60) evaluate information in each design candidate, and detect certain components of the concept, such as cost of the concept.

Art Unit: 2165

Optimization is achieved by achieved by placing the design candidates on a trade-off diagram, such as shown in FIG. 3, to determine which design has the best combination of multiple characteristics.

Filtering is accomplished using a filter (70) to reduce the number of design candidates. Any data is readable as “training data”, since the claims do not recite any actual training steps.

Claim 9: Table 1, illustrates a first run which creates a model (the model being Table 1 itself). The Table 2 is a second run performed, using the data of Experiment B and further filtered with two design criteria. Accordingly, Table 1 produces the basic model while Table 2 produces further refined results from the filtered data in Table 1 (col. 9, lines 1-31).

Any inquiry concerning this communication should be directed to Sam Rimell at telephone number (571) 272-4084.



Sam Rimell  
Primary Examiner  
Art Unit 2165